Table 1.--Analyses of two samples from drill holes in the Old Woman Plateau quadrangle, Sevier County, Utah

	As received (percent)	Moisture free (percent)	Moisture- an mineral-matte free (percent
*Drill hole: W-LCC-	12a-OWP sec.		
Depth: 810.4-813.7			
Proximate analysis			
Moisture	8.4	N/A	N/A
Volatile matter	38.2	41.7	48.4
Fixed carbon	40.7	44.5	51.6
Ash	12.7	13.8	N/A
Heating value (Btu/1b)	10,918	11,922	13,834
Rank: High-volatile B bit		,	10,00.
Ultimate analysis			
Hydrogen	6.0	5.5	6 1
Carbon	61.4		6.4
Nitrogen	1.3	67.0 1.4	77.7
Sulfur	0.5	0.5	1.6
0xygen	18.2	11.7	0.6 13.6
Ash	12.7	13.8	N/A
ASII	12.7	13.0	N/A
Free-swelling index	0.0		
Ash - Initial deformation	2,450° F		
Softening temperatur			
Fluid temperature	2,660° F		
Sulfur forms			
Sulfate	0.01	0.01	0.01
Pyritic	.22	. 24	.28
Organic	. 25	.27	.32
**Drill hole: W-LCC- Depth: 75.7-759.2			, R. 4 E.
Proximate analysis			
Moisture	11.2	N/A	N/A
Volatile matter	33.6	37.9	45.0
Fixed carbon	41.2	46.3	55.0
Ash	14.0	15.8	N/A
Heating value (Btu/lb)	10,065	11,340	13,468
Rank: High-volatile B bit	uminous		
Ulti <mark>mate analysis</mark>			
Hydr <mark>o</mark> gen	5.4	4.7	5.6
Carb <mark>o</mark> n	58.3	65.7	78.0
Nitr <mark>o</mark> gen	1.2	1.3	1.6
Su1f <mark>ur</mark>	0.5	0.6	0.7
0xyg <mark>e</mark> n	20.6	11.9	14.1
Ash	14.0	15.8	N/A
Free-swelling index Ash - Initial deformation Softening temperature Fluid temperature	0.0 2,800° F e 2,800° F 2,800° F		
Sulfur forms			
Sulfate	0.01	0.01	0.01
Carrace	.19	.22	.26

Table 2.--Oil and gas data from three drill holes in the Old Woman Plateau quadrangle, Sevier County, Utah

Operator, lease, and location	Total depth (ft)	Comple- tion date	Status	Deepest formation drilled
J. Hiram Moore 1 Corral-Federal sec. 2, T. 24 S., R. 4 E.	4,100	10-14-77	*D&A	Cedar Mountain
J. Hiram Moore 1 Johnson sec. 31, T. 23 S., R. 5 E.	3,344	6-16-77	*D&A	Cedar Mountain
J. Hiram Moore 1 Old Woman-Federal sec. 2, T. 23 S., R. 4 E.	5,740	11-20-77	*D&A	Cedar Mountain

*Drilled and abandoned.

Alluvial plain

Organic

*No. 122 on map.

**No. 117 on map.

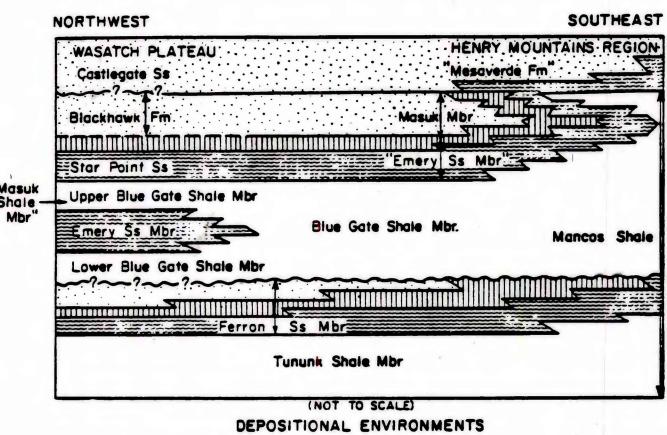


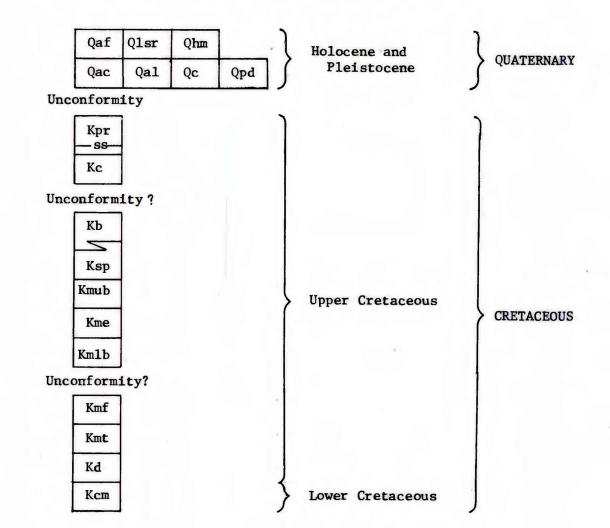
Figure 1 .-- Diagrammatic restored section from the Wasatch Plateau to the Henry Mountain region, showing depositional environments and correlation of units. Names in quotation marks are considered improperly used. Adapted from Peterson and Ryder (1975, fig. 6, p. 183).

Barrier and



Lagoonal-Paludal Offshare marine Geology mapped in 1978 - 79 by Base from U.S. Geological Survey 1968 L.F. Blanchard USGS DRILL HOLE W-LCC-13-OWP Feet (17) Meters - 2621 2500 8200 Kb 7800 - 2377 JOHNSON LIVESTOCK I-JOHNSON 7400 - 2256 7000 Ksp 6600 Kmub Kme Kme 6200 Kme 5800 Kmlb 5400 Kmlb 5000 Coal ===== Kmf Kmlb 4600 . Kmf - 1280 4200 Kmt Kcm _ 1/58 Kmf 3800 Kmt Kcm

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

MAN-MADE MATERIAL (HOLOCENE) -- Unconsolidated damfill ALLUVIUM AND COLLUVIUM (HOLOCENE AND PLEISTOCENE) ALLUVIUM (HOLOCENE AND PLEISTOCENE) -- Unconsolidated deposits of clay, silt, sand, and gravel along stream drainages

of clay, silt, sand, gravel, and boulders ROTATIONAL LANDSLIDE DEPOSIT (HOLOCENE AND PLEISTOCENE) --Displaced mass of bedrock rotated backwards as shearing and downslope mass movement took place but intact in stratigraphic relationships. Dips are anomalously high,

COLLUVIUM (HOLOCENE AND PLEISTOCENE) -- Unconsolidated deposits

as much as 50°. Mass of bedrock highly fractured PEDIMENT DEPOSITS (HOLOCENE AND PLEISTOCENE) -- Unconsolidated to poorly consolidated, poorly sorted sand, gravel, and boulders capping surfaces in eastern part of quadrangle

ALLUVIAL FAN DEPOSIT (HOLOCENE AND PLEISTOCENE) -- Unconsolidated deposit of clay, silt, sand, and gravel PRICE RIVER FORMATION (UPPER CRETACEOUS) -- Gray to tan or white

fluvial sandstone, partly conglomeratic, interbedded with gray shale, sparce carbonaceous shale, and very thin coal beds. Marker bed -ss- mapped at top of resistent and persistant, massive, crossbedded, whitecapped and conglomeratic sandstone about 275-350 ft above base of unit. Entire formation not completely exposed. About 700 ft thick

CASTLEGATE SANDSTONE (UPPER CRETACEOUS) -- Tan to brown or gray, coarse-grained, massive to crossbedded, cliff-forming, conglomeratic fluvial sandstone; minor claystone and shale. Thins and pinches out in southern part of quadrangle. From 20 to 100 ft thick

BLACKHAWK FORMATION (UPPER CRETACEOUS) -- Buff, gray, orange, and white, fine- to medium-grained sandstone of fluvial and marginal marine origin interbedded with gray shale, siltstone, mudstone, carbonaceous shale, and coal. Thick, economic coal beds occur only in the lower 150 ft. Intertongues with and channels into the Star Point Sandstone. From 700 to 800 ft thick STAR POINT SANDSTONE (UPPER CRETACEOUS) -- Gray, tan, and white,

massive- to thin-bedded, near-shore marine sandstone with interbedded dark-gray shales and siltstones that are tongues of the upper part of the Blue Gate Member of the Mancos Shale. Massive cliff-former. From 350 to 400 ft MANCOS SHALE (UPPER CRETACEOUS) -- Dark- to light-gray marine

shale and siltstone, and yellow, brown, and orange, very fine to coarse-grained sandstone. About 4,100 ft thick Upper part of the Blue Gate Shale Member--Gray, silty shale, gray siltstone, and gray, very fine grained sandstone.

About 450 ft thick Emery Sandstone Member--Yellow to gray, very fine to finegrained sandstone with interbedded gray shale and silt-

stone. About 800 ft thick Lower part of the Blue Gate Shale Member--Dark-gray shale with minor thin, yellow to tan, fine-grained sandstone beds. From 900 to 1,600 ft thick

Ferron Sandstone Member--Tan, orange, and brown, fine- to coarse-grained, commonly crossbedded and lenticular deltaic sandstone interbedded with gray shale, mudstone, siltstone, carbonaceous shale, and coal. From 700 to 800 ft thick. Shown in cross section only

Tununk Shale Member--Shown in cross section only DAKOTA SANDSTONE (UPPER CRETACEOUS) -- Shown in cross section

CEDAR MOUNTAIN FORMATION (LOWER CRETACEOUS) -- Shown in cross section only

COAL ZONE--Dashed where approximately located; dotted where concealed. Number in circle refers to location of measured coal section (sheet 3) AREA OF BURNED COAL--Result of burning of underlying coal beds;

dotted line indicates extent of burn; v's attached to line indicate base of burned coal CONTACT-Dashed where approximately located; dotted where concealed

FAULT--Dashed where approximately located; dotted where concealed. Bar and ball on downthrown side

FAULT ON CROSS SECTION--Arrows show relative movement STRIKE AND DIP OF BEDS STRIKE OF VERTICAL JOINTS

-7600- STRUCTURE CONTOUR--Drawn on top of Star Point Sandstone. Dotted where projected over land surface. Contour interval 50 ft ACTIVE COAL MINE

ABANDONED COAL MINE

Kd

Kcm

ABANDONED OIL AND GAS TEST HOLE--Showing operator and lease

USGS COAL DRILL HOLE--Number in circle refers to coal section (sheet 3)